

PROVINCE OF BRITISH COLUMBIA

THIRTY-EIGHTH REPORT

OF THE

PROVINCIAL BOARD OF HEALTH

FOR THE

YEAR ENDED DECEMBER 31ST

1934

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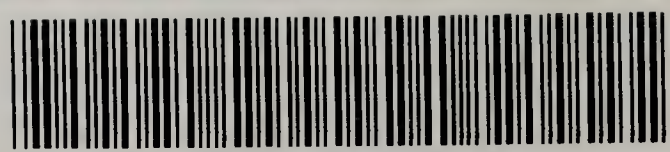


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PROVINCIAL BOARD OF HEALTH,

VICTORIA, B.C., March 1st, 1935.

To His Honour J. W. FORDHAM JOHNSON,

Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to present the Report of the Provincial Board of Health for the year ended December 31st, 1934.

G. M. WEIR,

Provincial Secretary.

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REPORT of the PROVINCIAL BOARD OF HEALTH.

PROVINCIAL BOARD OF HEALTH,

VICTORIA, B.C., December 31st, 1934.

The Honourable G. M. Weir,

Provincial Secretary, Victoria, B.C.

SIR,—I have the honour to submit the Thirty-eighth Annual Report of the Provincial Board of Health of British Columbia for the year ended December 31st, 1934.

Under the present serious economic conditions, which have existed now for about four years, it was expected that a report from the Health Department would show an accumulative effect of disorganization of the normal lives of our people with the resulting increase amongst the population of the effects of contagious diseases, and more particularly the effects of changes in the habits of the people due to loss of work, with increased reduction in the nourishment normally sustained by wage-earners when wages were regularly received. It would appear that at the end of this time our statistics should show great increases as the result of the economic conditions, but to the wonder of the health-workers in North America there has been a surprising maintenance of the general health of the people. Governments were forced to make large expenditures in an effort to continue the average sustenance enjoyed by the people under normal times, and we are able to report very favourably in regard to the condition of the people as a whole.

There has been a marked and steady decline in the number of cases of infectious diseases, a falling-off of the death-rate; in fact, during the past four years we have made a progress which is not only encouraging but gratifying in the fact that the policies adopted by the Government have been sound in principle, and the policy of the Provincial Health Department has shown results exceeding our expectations in the matter of the number of outbreaks, the number of cases reported, and particularly in the lessening of the number of deaths.

Modern scientific workers along these lines have been devoting their time principally to the determination of the causes of these infectious diseases. This point once established, they then proceed with the application of the remedy. The statistics of the results show that all the claims made in regard to the proper application of preventive measures justifies the work and brings about a very satisfactory condition of affairs. This matter is dealt with at length in regard to diphtheria in the Epidemiological Report which is contained in this issue.

It is very interesting to note the figures in connection with diphtheria. I have above referred to the results obtained from research-work and the application of preventive measures. In 1928-29 there were 985 cases of diphtheria reported, with forty deaths. In that year we began the campaign for active immunization and the number of cases fell from 985 to nineteen in 1933-34. In 1928 there were forty deaths and in 1933 there were five in the Province. I do not know if it would be possible to give a more striking example of the work that is recommended and that is being carried out by the Provincial Board of Health.

The scarlet fever cases ran to upwards of 3,000 cases during the year. For many years some clinicians have held that scarlet fever is not a definite clinical entity, and epidemiologists knew that milk, infected by direct or indirect contact with scarlet fever and drunk raw by a half a dozen susceptible persons of different ages, did not produce the same train of symptoms in all of them, but was far more likely to produce half a dozen different clinical pictures, only one of which might be definitely classed as that of scarlet fever. Much work has been done in regard to scarlet fever. It has been shown that there are many strains of the hæmolytic streptococcus, and it is found that infection by one strain of hæmolytic streptococcus does not protect the patient against infection by another, and very often a so-called "relapse" is a fresh infection by a strain differing serologically from the primary infection.

Many of these cases are of mild type and, as referred to in our Epidemiologist's report, many are not reported for fear of a long quarantine period. In this connection it is interesting to note that a committee of medical officers on scarlet fever said: "On the whole, less attention has been devoted to the possibilities of efficient home treatment than the evidence we have examined seems to justify." It might be well if our Medical Health Officers would consider this point. There would be less hospitalization of these cases. These conclusions are arrived at and reported by the work done under the British Ministry of Health.

Many of the measures being carried out by the Provincial Board of Health are producing results, and we find the usual reaction from the people. They now expect these results to follow and are apt to grow careless in regard to other directions given by the Board of Health. The work under this Department continues unceasingly and is accepted, but this cannot go on continually without being fed with fresh information, and we hope during the coming year to enlarge our public education department. We have sufficient evidence to show the people that the claims we have made some few years ago were correct, and that these claims have been proven by the results that we are obtaining in our different departments.

LABORATORIES.

Our laboratory-work, as is shown by the report from our chief laboratory, included in this report, which is indicative of the same proportion of work carried on in the other laboratories, proves conclusively that the public are availing themselves of these facilities, and particularly the medical profession. We have established laboratories at strategic points in the Province, but we need more of these, and we hope during the coming year to afford greater facilities to the medical profession and also to carry out increasingly the laboratory-work along the sanitary lines.

All of the public-health work in our laboratories is free to the public. It is restricted to diagnostic, preventive work, such as the examination of diphtheria cultures, tuberculosis sputum, etc., examinations of milk, water, etc. It exists to facilitate in British Columbia the control and prevention of infectious diseases and the promotion of health.

In connection with the laboratory-work, vaccines and antitoxins are sent out free on request, and for the past year the following have been furnished: 4,650 points smallpox vaccine, 4,689,000 units diphtheria antitoxin, 1,793 doses diphtheria toxoid, 64 packages Schick test for diphtheria, 841 packages prophylactic scarlet fever antitoxin, 281 packages treatment scarlet fever antitoxin, 60 packages Dick test for scarlet fever, 386 doses scarlet fever toxin (for active immunization), 390 doses typhoid vaccine, 437,000 units tetanus antitoxin, 82 packages 20 c.c. anti-meningococcus serum, 126 packages pertussis (whooping-cough) vaccine, and 4 treatments rabies vaccine.

VENEREAL CLINICS.

Our Venereal Clinics are carrying on the work quietly, thoroughly, and efficiently, and while these clinics have been subjected to some criticism, more particularly from the medical profession, yet we feel that under the circumstances we are doing good work and are obtaining results which we can check off through following out the number of cases of general paralysis as found in our mental homes.

During the past year we have in our two large clinics examined and treated—in the Vancouver Clinic, 43,471; in the Victoria Clinic, 16,472. In round numbers, 60,000 examinations and treatments have been given.

Although there is no definite proof of an increase in V.D. cases, neither is there a reliable evidence of any decrease. The marked increase at the free V.D. Clinics is not to be taken as evidence of increased incidence of the disease, but rather as evidence of increased confidence on the part of the public as regards the services rendered by these clinics. Unfortunately, however, this increased confidence in the Clinic Service is largely due to the advertising of the ex-Clinic patient who as a "satisfied customer" is (in this instance through his own bitter experience) able to advise his friend where to go in his dire need.

It is still more unfortunate that at this time very little is being done by means of public education or more practical means to prevent V.D. infection. Hospital statistics show a decrease in congenital syphilis in infants, and also in adults of neuro and cardio-vascular syphilis, while there is some increase in cases of the primary and latent stages. In neither instance, however, can the tendencies indicated above be attributed to a decrease in incidence of the disease, but rather to earlier and more efficient treatment, due largely to the better education of the public. This also accounts for the increase in the number of patients reporting for treatment while the disease is still in the primary stage.

The public must still further be educated as to the prevalence, treacherousness, and the far-reaching results of the disease, and the need for early and prolonged treatment, before the public will demand a fuller and freer discussion of this disease and its horrible aftermath.

On account of the moral issue involved, public opinion will not allow the use of prophylaxis at this time. Therefore some other method must be adopted, such as post-exposure treatment along the lines of public education.

PUBLIC HEALTH NURSING.

Public Health Nursing has been one of the bright stars in our work. There has been no demand for curtailment, but an increased demand for extension of the service, and it was pleasing to read that at the last annual meeting of the School Trustees of British Columbia a motion was introduced making the establishment of the Public Health Nursing throughout the Province mandatory. There could not be a better indication of the fact that the public education along these lines is bearing fruit a thousandfold. We are looking forward with a great deal of pleasure for the extension of this work during the coming year.

In this connection we would like to express our very great appreciation of the outline of the work along public-health lines as proposed by yourself. Your accession to the office of Provincial Secretary, under which our Department functions, has reacted on the work in all our departments. We feel that we have an understanding man in yourself and the promises for the future are very, very encouraging.

The Public Health Nursing laid the basis for the foundation of our

HEALTH UNITS.

The work of the Health Units is making very satisfactory promise of enlargement. We have demonstrated the results in regard to the improvement in the health, beginning with the child, and we are able further to demonstrate the remarkable saving in expenditure, but this saving also shows the effectiveness of employing a trained personnel. Such saving is an unanswerable argument when we approach municipal and school authorities.

The demonstration that we have given in this work so far has led to the consummation of a large unit which we had in contemplation for some years, and that is a unit involving under one management practically the whole of the Burrard Peninsula, including the City of Vancouver and the surrounding municipalities. These different organizations have intimated their desire to coalesce to form this Metropolitan Health Unit, and a Bill will be presented at the next sitting of the Legislature in February. This is the first attempt on the North American Continent to bring about co-operation as between all the different city and municipal authorities under one head. We certainly can point to this as an undoubted endorsement of the education of our people along public health lines.

TUBERCULOSIS.

Our general plan in regard to tuberculosis, which has been carried out in rather water-tight compartments, is now to be united under an entirely new programme which will embrace the Province as a whole. We will tackle more particularly the improvement in the educational measures, and particularly in the endeavour to provide trained personnel to deal with the early cases, to carry on home education persistently through the Public Health Nurses who will be appointed under full-time Medical Health Officers. We will adopt for our slogan, "Tuberculosis is preventable—Tuberculosis is curable."

I would particularly recommend a perusal of the article in this report written by Dr. A. S. Lamb, our full-time Tuberculosis Diagnostician. The figures that he quotes and the comments that he makes show clearly the underlying principles which we wish to adopt.

EDUCATION.

We regret that owing to curtailment of our budget our amount of printed material has been much less during the past year, but we hope to increase this in a marked degree. We are constantly distributing literature which is being sent to different parts of the Province, but mostly through the Women's Institutes, and I have to record again our great appreciation of the work which is being done by the Women's Institutes in British Columbia in their making the health programme one of the most important branches of their work. From the very beginning they have been to the Department a tower of strength, and it is pleasing to acknowledge that the interest they have taken has never waned.

We have continued publication of our Monthly Bulletin, and we were peculiarly fortunate in securing from Dr. H. W. Hill a series of articles on public health. These are being carried as a continued story, and on completion will be issued as a special bulletin and distributed to the profession and others. We very much appreciate the help and advice that we have received from Dr. Hill.

VITAL STATISTICS.

There is appended a Vital Statistics Report which is a short résumé of the information furnished in our regular Vital Statistics Report. The Vital Statistics Report itself is a compilation of all the statistics in connection with our department, but our Inspector of Vital Statistics Offices is pointing out shortly general information which we think suitable for our Annual Report.

We append an account of approvals for sanitary works during the year:—

Cemetery-sites approved.—Ganges, Montney, Birch Island, and Port Renfrew.

Sewage-disposal Systems approved.—Maple Ridge Municipality (extension at Haney).

Water-supply Systems approved.—Courtenay (extensions), Revelstoke (renewals), and Saanich (extensions).

We are indebted to the splendid co-operation that we receive through the Provincial Police who act as Sanitary Inspectors in the different districts of the Province. At no time has their interest failed and a request for co-operation through the Commissioner meets with instant attention. I would like to express for myself and staff our great appreciation of the courtesies that we are receiving at their hands.

I would like, Sir, to express for myself and staff appreciation of the co-operation which we received from yourself, and to say that such interest lends greatly to our success. We feel that, backed by your help and encouragement, we will make continued progress.

I have the honour to be,

Sir,

Your obedient servant,

H. E. YOUNG,

Provincial Health Officer.

GENERAL REPORTS.

EPIDEMIOLOGICAL REPORT.

VICTORIA, B.C., February 16th, 1935.

*H. E. Young, M.D., C.M., LL.D.,**Provincial Health Officer, Victoria, B.C.*

SIR,—I beg to submit the following report on the epidemiological work carried on in British Columbia during the year 1934:—

Fortunately our Province has not been visited during the year by any dangerous disease in serious epidemic proportions. The total number of cases of reportable diseases reached 11,432, a figure only slightly higher than that for the previous year. Cancer, mumps, and scarlet fever showed considerable increase over the previous year, while chicken-pox and influenza helped to balance up with an appreciable decrease in numbers. The large increase in cancer recorded is due mainly to the better reporting of cases. Further details on this subject will be found elsewhere in this report.

As during the other years of the present period of economic depression through which we have been passing, the lack of finances to carry on any elaborate plan of prevention has been a serious handicap. Nevertheless, we have been able to carry on in a limited way, and largely through the co-operation of our local Health Officers and Public Health Nurses stationed in various parts of the Province we have been able to at least keep some check on epidemic diseases, and to see outbreaks brought to an abortive conclusion in many localities.

On investigation of outbreaks of preventable diseases from time to time, one cannot avoid being impressed with the great need for more public-health education. While it is no doubt true that some infectious diseases are spread through brazen disregard of what is common knowledge concerning them, generally, I believe, the infection is continued owing to lack of knowledge as to how communicable diseases are spread and as to the means of control. It is very difficult to overcome the old ideas that diseases were spread by bad smells and unsanitary surroundings, and to convince people that contact with cases or carriers is the usual method by which transference of the infection takes place.

It is gratifying to note, however, that in recent years there has been a tendency to give in our public and high schools increasing prominence to the study of health and modern methods of controlling communicable diseases. Public Health Nurses also are acting as community teachers and demonstrators, and gradually there is being developed a public well informed on health matters, and which, no doubt, will co-operate to a much greater degree with those who are charged with the task of protecting the health of the community.

REPORTABLE DISEASE INCIDENCE BY MONTHS, BRITISH COLUMBIA, 1934.

Disease.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Actinomycosis.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Cancer.....	6	72	57	54	54	53	59	22	118	45	76	69	685
Cerebrospinal meningitis.....	.....	2	2	1	1	.....	1	1	1	.....	.....	1	10
Chicken-pox.....	208	145	186	159	137	158	46	19	32	204	335	350	1,979
Conjunctivitis.....	2	3	3	3	6	9	4	2	.....	1	38	5	76
Diphtheria.....	1	2	1	.....	1	6	3	1	8	7	4	6	40
Dysentery (all forms).....	.....	.....	1	1	.....	.....	.....	.....	25	35	3	.....	65
Encephalitis.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	2
Erysipelas.....	1	4	3	4	4	2	1	4	3	6	3	7	42
German measles.....	3	11	5	14	5	6	3	.....	2	11	13	19	92
Influenza.....	74	60	94	41	57	1	8	20	40	42	21	183	641
Malaria.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Measles.....	9	5	91	28	6	5	7	5	1	3	15	17	192

REPORTABLE DISEASE INCIDENCE BY MONTHS—*Continued.*

Disease.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Mumps.....	238	312	303	207	141	200	68	32	35	83	119	178	1,916
Paratyphoid fever.....	.....	.....	2	.....	.....	1	1	.....	.....	.....	.....	.....	4
Pneumonia (lobar).....	16	19	38	13	12	7	8	2	3	10	10	8	146
Pneumonia (Broncho).....	14	10	13	6	11	8	5	1	4	6	4	21	103
Pneumonia (unspecified).....	9	1	5	.....	1	.....	2	.....	3	.....	.....	2	23
Poliomyelitis.....	1	1	2	1	.....	2	1	3	11	5	3	2	32
Scarlet fever.....	327	414	571	380	271	282	121	67	106	195	140	185	3,059
Septic sore throat.....	8	7	2	23	4	19	5	5	10	11	19	29	142
Smallpox.....	.....	4	1	1	.....	.....	.....	1	.....	.....	.....	.....	7
Tick paralysis.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Trachoma.....	3	13	33	1	7	4	57	7	34	5	6	15	185
Tuberculosis.....	54	85	114	75	83	86	68	51	73	61	60	88	898
Typhoid fever.....	1	.....	2	2	3	4	16	11	17	9	8	6	79
Undulant fever.....	.....	.....	.....	2	2	2	.....	1	.....	.....	.....	.....	7
Whooping-cough.....	48	61	61	75	105	136	46	56	110	148	75	83	1,004
Totals.....	1,024	1,231	1,590	1,091	913	991	532	311	636	887	952	1,274	11,432

CANCER.

Only since 1932 have cancer cases been reported. In that year there were 72 cases; in 1933, 96 cases; and in 1934, 685 cases. These figures represent merely the improvement in reporting and not the actual increase in cancer. Physicians in most of the smaller centres report their cancer cases to us regularly, and in the larger centres monthly returns are obtained from the large hospitals, most of which have willingly co-operated in an effort to collect statistics which may be of value in the study of this disease. Our mortality statistics show that during the ten-year period from 1921 to 1930 the death-rate from cancer increased from 74 to 118 per 100,000 population, and during the present decade the trend is still upward.

Information gathered from reports already received show that in most cases the patient reports to the doctor too late for treatment to be of much value. It is hoped that the collection of details regarding cases may be useful in leading to earlier and more efficient diagnosis and treatment, with the final effect of reducing our death-rate from this disease.

DIPHTHERIA

One of the bright spots in our work has been the continued low incidence of diphtheria, only forty cases having occurred during the year. While this is a slight increase over the previous year with thirty-three, the Province in general has been fairly free of the disease. Twelve cases were from the City of Nelson and vicinity, where they have repeatedly been urged to undertake an immunization campaign, but up to the present they have not seen fit to adopt this procedure.

In the Cities of Vancouver and Trail, on the other hand, toxoid immunization has continued, and although outbreaks of diphtheria did occur, the attack-rate was low. It is estimated that since 1929 nearly 30,000 have been immunized in Vancouver up to the end of 1934. We have also been able, through the local Health Officers and Public Health Nurses to promote the use of toxoid in many of the smaller areas. The total result has been a reduction in our diphtheria morbidity rate from 149.24 per 100,000 in 1929 to a low figure of 5.57 per 100,000 in 1934. Our object now will be to continue the use of toxoid, concentrating mainly on the pre-school child, and to prevent the public from adopting an attitude of lethargic indifference which might result from the fact that diphtheria has ceased to be, for the present at least, a serious disease in our midst.

MUMPS.

The number of cases of mumps—namely, 1916—which has occurred during the year has been the highest since 1929, when 3,292 were recorded. The chief difficulty has been that many cases are recognized and reported too late to make isolation effective in preventing the spread

of the infection. It is also probable that many mild cases are not recognized at all, or at least are not reported, and no control measures instituted.

POLIOMYELITIS.

On account of the epidemic of poliomyelitis beginning in the month of May in Southern California, there was some fear that it might extend as far as this Province, particularly as there is a considerable amount of tourist travel between these two areas. Consequently we took the precaution of having our Provincial Laboratories collect a reasonable supply of convalescent serum to be available on request. During the fall the disease became epidemic in the State of Washington, still closer to our borders, but we were fortunate in having only fifteen cases during the third quarter of the year and ten during the last quarter. Most of these were scattered, the heaviest concentration being in Kelowna and district, where six cases occurred.

Meteorological conditions during the late summer and early fall were such as are usually considered favourable for the spread of poliomyelitis, and the small number of cases must be attributed to some other factor. According to observers in Quebec, Illinois, and elsewhere, the attack-rate is much less, for some unexplained reason, amongst people who have been immunized against diphtheria by the use of toxoid. As this practice has become fairly general in British Columbia, it is possible that this may have been an influence in preventing the development of numerous cases.

SCARLET FEVER.

Scarlet fever has probably given us the most worry, having continued to spread in spite of the usual precautions, 3,059 cases having occurred during the year. Very few of the cases have had a fatal outcome; in fact, there have been very few of the complications which heretofore have been customary with scarlet fever. Although final figures are not yet available, there were only six deaths from the disease recorded during the first eleven months of the year, according to preliminary reports.

After personal investigation in numerous instances, and after perusal of reports from Local Health Officers, I have come to the conclusion that the disease has continued to spread, not so much from cases which have been reported and isolated, but rather from the very mild unreported cases, and perhaps carriers. I have personally seen cases with sore throat only and no rash whatever. Others had very slight rash, sometimes passing unnoticed, while in some the rash was atypical, and with rubella running concurrently in some areas, there has been some difficulty in diagnosis.

Although our Provincial regulations call for five weeks' quarantine for scarlet fever, it has been felt by some of our Local Health Officers that this period is much too long, especially for this mild type of the disease. Many parents dread the long period of quarantine, and in order to avoid it will fail to report suspicious illnesses in their families. It is felt that secondary cases would be no greater with a shorter period of isolation, and this has been borne out by the experience of other Provinces and States where it has been tried; also a greater degree of co-operation on the part of parents in reporting cases would be expected. In our bulletin for March, 1934, a proposed change from a five- to a four-week isolation period for uncomplicated cases was mentioned, and physicians were asked to express opinions on the matter. Up to the present no one has expressed opposition to the shorter period, and some City Health Officers have suggested that the isolation period be reduced to three weeks for uncomplicated cases.

Toxin for immunization purposes has been supplied free to physicians on request, but few have used this procedure. The type of scarlet fever with which we have to deal has been so mild and has caused such few complications generally that most physicians, as well as parents, preferred to take a chance on the disease with its resultant lasting immunity, rather than the five weekly injections of toxin which would produce an immunity which might be expected to be less permanent. In one or two small communities where artificial immunization was carried out, however, the results were very good and the disease was thus quickly eliminated.

SMALLPOX.

Although seven cases of smallpox were recorded during the year, four of these were members of the crew of a foreign vessel arriving from Oriental ports. These men received their infection outside of this Province, although they were taken ashore and detained at William

Head Quarantine Station. Three of the cases had been vaccinated several years previously and recovered after attacks of comparative mildness. The fourth case, however, had never been vaccinated and he succumbed to a severe type of the disease.

Our experience during the last few years has convinced us that the Oriental type of smallpox which has periodically been introduced into this country is of a very virulent type, and that a fairly high degree of immunity is necessary to protect against it, or, in other words, vaccination of comparatively recent date is the only security.

TRACHOMA.

Recent surveys conducted by Dr. Wall, an eye specialist of the Federal Indian Department, have disclosed a considerable amount of trachoma among certain Indian bands, particularly those in the drier interior parts of the Province. A few cases have also been reported among white people, particularly children who have been in contact with the Indians.

The physicians in these areas have been given instruction by Dr. Wall as to diagnosis and treatment, and as this year he made his second trip through these areas, he has been able to check up on the diagnosis and treatment as carried on in each locality. As the physicians who are acting under the Department for Indian Affairs are also our Local Health Officers in these localities where trachoma is prevalent, Dr. Wall's visits have been of great assistance to us in taking steps to get this disease under control.

TYPHOID FEVER.

Most of our typhoid during the year was of the sporadic type, the only outbreak in the nature of an epidemic occurring amongst Indians in the fishing villages about the mouths of the Nass and Skeena Rivers.

At the request of the Federal officials of the Department for Indian Affairs I made an investigation of conditions leading to the typhoid outbreak mentioned above. Epidemiological evidence pointed to one or two individuals as probable carriers, and contact with these, either direct or indirect, was established. On account of the unsanitary conditions under which these people live, a carrier amongst them would be expected to cause numerous cases. The matter was explained to the Federal officials and the suggestion made that more effort be spent in giving these people some sort of health education and more sanitary supervision. Owing to the fact that these Indians associate with white residents, especially during the fishing season, they are a menace to the rest of the Province until they can be induced to raise their standards of health and sanitation.

Efforts have been made to trace the source of infection in each case of typhoid reported and to establish a permanent record of the carriers throughout the Province. In a few cases we have been successful, but in many of the sporadic cases it has not been possible to do so. It is felt that the typhoid-carrier situation is one that should be thoroughly investigated with a view to education and constant supervision of the individual carriers in an effort to reduce this menace to a minimum.

ENDEMIC GOITRE.

Reports from our School Medical Inspectors for a number of years have shown a considerable amount of goitre amongst the school-children of certain areas. Figures for years ending June of each year for the last six years are as follows:—

1929.....	6,473	1932.....	5,176
1930.....	4,955	1933.....	6,319
1931.....	5,403	1934.....	5,546

Beginning during the fall of 1932, we brought the high goitre incidence in certain areas to the attention of the respective School Boards, and advocated the administration of iodine in the schools as an effective preventive measure. To assist in this programme the Provincial Board of Health made arrangements to supply a palatable tablet containing $\frac{1}{6}$ grain of iodine at a very low cost—namely, 15 cents for forty tablets, sufficient for a year's treatment for one pupil. Two tablets daily for ten school-days, twice yearly (spring and fall), was the method advocated as being the simplest for school staffs to carry out.

Quite a number of schools have undertaken this treatment, the money being supplied in some cases by the parents concerned, in some cases by the School Boards, and in some cases

by local women's organizations. From some of these schools we have had reports of excellent results in the reduction of goitre. In many instances, however, it has been found that parents do not consent to have this treatment given to their children in school merely as a prophylactic, and it appears that therapeutic rather than preventive use has been the rule. Consequently the size of many goitres is probably being reduced, but the number of new goitres developing is not being very materially affected. A considerable amount of health education and organization will be necessary before we can expect to see the number of goitre cases appreciably reduced.

In general, the areas showing the greatest amount of goitre are in the interior parts of the Province. Of the large statistical areas into which the Province has been divided, Area 10c (Peace River) shows the highest percentage of goitre in the schools—namely, 18 per cent. for the year ended June, 1934. Area 3 (Okanagan) showed 16.38 per cent.; Area 8A (Lillooet-Prince George), 15.18 per cent.; and Area 8B (Vanderhoof-Hazelton), 15.08 per cent. goitre amongst the school-children.

While these figures are still high, they show a slight reduction from figures of the previous year, and it is felt that the use of iodine as a preventive, which we have been advocating and assisting with, is beginning to show results.

In closing, may I express appreciation of the excellent co-operation which has been shown us by physicians throughout the Province in reporting their infectious diseases to us regularly.

I have, etc.,

A. M. MENZIES, M.D., D.P.H.,
Acting-Epidemiologist, Provincial Board of Health.

COMBINED REPORT OF TRAVELLING MEDICAL HEALTH OFFICER AND INSPECTOR OF HOSPITALS.

PROVINCIAL BOARD OF HEALTH,
VICTORIA, B.C., February 5th, 1935.

H. E. Young, M.D., C.M., LL.D.,
Provincial Health Officer, Victoria, B.C.

SIR,—I have the honour to submit my Eleventh Annual Report as Travelling Medical Health Officer and Inspector of Hospitals for the Province. This report is for the calendar year 1934.

While there has not been any event in connection with tuberculosis that has been of outstanding significance, nevertheless there have been a number of incidences throughout the year that may have considerable bearing on our T.B. problems. First of these was a meeting in Vancouver convened by yourself at the instance of the Minister, at which representatives from all the different bodies interested in tuberculosis were present. This included City Council, City Health Department Chest Clinic, Health League, and City and Provincial Relief, etc. The object of this meeting was to canvass the situation as to what were the most urgent problems, how these were being met, and how best the service could be developed with equipment and funds available, or likely to be made available in the immediate future. In addition to this, discussion took place as to future permanent policy to which all efforts should be directed.

In July a meeting was held also in Vancouver with Dr. G. J. Wherrett, Executive Secretary, Canadian Tuberculosis Association, and representatives of the above bodies, along with I.O.D.E. and Kinsman Club representatives, *re* Christmas-seal sale. Here, too, a general discussion of T.B. programmes took place.

On November 15th to 17th a Departmental Conference on Health and Welfare Services under chairmanship of Dr. H. M. Cassidy, Director of Social Services, was held in Vancouver. I think the outstanding idea that developed from this conference was, for most of us, the little we knew about what these other departments were doing, and yet, for best results, how there should be general knowledge of all the departments in order to not only co-operate one with the other, but that there might be greater co-ordination of the several parts.

These meetings, then, have emphasized what at least to me has always been the weakness in our T.B. programme—good services in all the different branches, but lack of co-ordination of these. Co-operation there has always been, the relations between the component parts always the most friendly, but, lacking a head, co-ordination was impossible.

From this conference we are looking forward, then, to general improvement in our services, knowing at the same time that capital expenditures are not feasible at present.

In addition to the above conferences, I also attended the following medical meetings: Annual meeting, Canadian Medical Association, Calgary; B.C. Medical Association, Kamloops; and Vancouver Medical Summer School in Vancouver.

CLINICAL WORK.

This eleventh year of Travelling Clinics is the first that has not shown an increase in the number of cases examined. This was to be expected, as for some years now we had felt that we had reached the limit of our capacity. The decrease in the number of examinations, however, was infinitesimal; total, 1934, being 3,201, compared to 3,247 in 1933. There were slightly more re-examinations, 1,237 to 1,230 last year, so there was a greater reduction in the number of *new* cases examined, 2,017 in 1933 to 1,964 in 1934. Of these 1,964 new cases, 197 were positively pulmonary or hylus T.B., also a slight reduction from last year, and last year showed a reduction over 1932. Thirty-three were T.B. of other organs, also less than in 1933, 36 to 33. Suspects, 144 to 126, and non-T.B., 1,634 to 1,608. There is not enough variation here from which any conclusions of value can be drawn. The number of cases examined depends largely on the facilities provided; that is, if more clinics were held, no doubt more cases would be examined. Whether the number of positive cases would be increased or not is problematical. Certainly they would not be increased in proportion to the number of cases examined.

COMPARATIVE REPORT.

Total number of examinations.....	3,201
Old or re-examinations.....	1,237
New cases	1,964
Total X-ray examinations.....	2,530

	1928-29.	1929-30.	1930-31.	1931-32.	Aug. 1 to Dec. 31. 1932.	1933.	1934.
Total examinations.....	991	1,779	2,323	2,989	1,122	3,247	3,201
Re-examinations.....	290	557	694	1,074	419	1,230	1,237
New cases.....	701	1,222	1,629	1,915	703	2,017	1,964
Positive T.B., new.....	117	186	222	242	82	203	197
T.B., other organs.....	10	34	25	21	15	36	33
Suspects.....	93	137	137	119	48	144	126
Non-tuberculous.....	479	863	1,245	1,533	553	1,634	1,608

Total number of clinics held, 60.

Year.	New Cases.	Re-examinations.	New T.B.'s, Pulmonary and Hylus only.
1923-24.....	240	-----	114
1924-25.....	342	40	82
1925-26.....	390	36	77
1926-27.....	478	40	109
1927-28.....	377	178	110
1928-29.....	701	290	117
1929-30.....	1,222	557	186
1930-31.....	1,629	694	222
1931-32.....	1,915	1,074	242
1932 (Aug. 1st to Dec. 31st).....	703	419	82
1933.....	2,017	1,230	203
1934.....	1,964	1,237	197
Totals.....	11,978	5,795	1,741

Total number of new cases.....	11,978
Total number of new cases, hylus and pulmonary tuberculosis.....	1,741
Total number of examinations, old and new.....	17,773

The increase in re-examinations, however, throughout the years does indicate the increased use that is being made of the clinic, not for diagnostic purposes only, but as an aid to treatment. This, together with the fact mentioned last year, that it is more and more the policy of the Sanatorium to discharge patients as early as possible to their homes if sputum is negative in order to have a greater turnover. What is equally important is that more cases may receive the benefit of the education along health lines that go with Sanatorium treatment.

I still believe in Sanatorium treatment of all cases, if that were possible, for a short time at least for educational purposes, and that is one of the principal reasons why more bed accommodation is advisable. At the same time, it must be recognized that many cases make remarkable recoveries at home, but this is only possible in most cases in the best type of home—this latter to include the entire surroundings, including personnel—and proper continuous supervision.

SUMMARY OF NEW CASES.

Positive tuberculosis—

Pulmonary	189
Hylus	8
Bones	1
Peritonitis	6
Pleurisy	4
Mediastinitis	1
Eye	1
Erythema induration	1
Lupus	1
Pneumonia	1
Adenitis—	
Cervical	10
Mediastinal	6
Mesenteric	1
	— 17
	— 230
Suspects	126

Out of these new positive cases, eighty-five had been diagnosed by family physician before coming to clinic.

Other Chest Conditions.—Peribronchitis, 55; bronchitis, 191; bronchial asthma, 72; bronchiectasis, 6; emphysema, 14; pleurisy, 31; pneumonia, 19; empyema, 2; lung-abscess, 3; silicosis, 7; pneumoconiosis, 7; mediastinitis, 9; malignancy, 4; erythema nodosum, 1; spontaneous collapse lung, 1; T.B. infection, not disease, 17; other diagnosis, 220; negative findings, 949; total, 1,964.

Comment on the above is not materially different from last few years. Under “other chest conditions” are included almost all diseases that develop in the lung and its adnexa; the great majority being either bronchitis, peribronchitis, or bronchial asthma. The small number of positive cases compared with the total and the comparatively large number of negative findings again illustrate the effect of our propaganda as well as the alertness of the medical profession and Public Health Nurses to not pass up any positive cases.

Silicosis.—Our examinations show again a small number of silicosis and other dust-produced diseases, the number not varying greatly from year to year. This is very interesting in view of the fact that the making of this a compensable disease is being considered. To come to any definite conclusion about the number of cases in the Province, what mines are mostly responsible, etc., a comprehensive survey will be necessary.

SUMMARY OF NEW CONTACTS.

Pulmonary tuberculosis, 27; hylus tuberculosis, 6; T.B. pneumonia, 1; T.B. peritonitis, 1; T.B. pleurisy, 1; adenitis, 1; suspects, 58; bronchitis, 18; bronchial asthma, 3; peribronchitis, 10; pleurisy, 1; emphysema, 1; adenitis mediastinal, 2; mediastinitis, 1; erythema nodosum, 1; T.B. infection, not disease, 10; other diagnosis, 33; negative findings, 313; total, 488.

The number examined because of contact only has greatly increased year by year, 397 in 1933 and 488 in 1934. These are cases referred to the clinic not because of any known disease.

but because of tuberculosis in the family. The number of positive cases is proportionately increased, the percentage remaining about the same. This is in line with the statement frequently made, "There are nine times as many cases of tuberculosis develop in families where the disease already exists as in families free from the disease."

If our programme is sufficiently efficient to prevent the greater number of these cases from developing active tuberculosis later, or cure those cases that are already active, it should considerably affect our death-rate in time to come. This latter should be possible in the case of children of whom a goodly part of this class is made up; for we are realizing more and more that children show great resistance if source of infection is removed.

SUMMARY OF CASES RETURNING FOR RE-EXAMINATION.

Pulmonary and hilar tuberculosis.....	453
Tubercular bones	2
Tubercular mediastinitis	3
Tubercular eye	1
Tubercular cervical adenitis	9
Tubercular peritonitis	8
Tubercular infection, not disease.....	15
Suspects	109
Pleurisy	31
Peribronchitis	27
Bronchitis	62
Bronchial asthma	23
Bronchiectasis	7
Pneumonia	1
Mediastinitis	6
Empyema	3
Silicosis	4
Emphysema	7
Malignancy	1
Anthracosis	1
Pulmonary hæmorrhage	2
Other diagnosis	57
Negative findings	405
Total	1,237

Of the above 1,237 cases, 395 were examined on account of contact with open cases of tuberculosis.

SUMMARY OF CONTACT CASES RETURNING FOR RE-EXAMINATION.

Hilus and pulmonary tuberculosis.....	67
T.B. peritonitis	1
Suspects	51
T.B. infection, not disease.....	14
T.B. cervical adenitis.....	6
Pleurisy	1
Peribronchitis	1
Bronchitis	10
Bronchial asthma	1
Mediastinitis	3
Other diagnosis	14
Negative findings	226
Total	395

The large percentage of positive T.B. cases here shown further illustrates the use that is being made of the clinic for checking up on cases being treated at home either after treatment

at Sanatorium or those numerous cases that either be admitted to an institution or refuse such treatment for a variety of reasons.

Contacts under supervision, 1933-34.....	1,293
Contacts not examined since 1932.....	241
Contacts not examined since 1931.....	215
Contacts not examined since 1930.....	255
	— 2,004
T.B. (pulmonary and hylus).....	700
Patients referred by family doctor.....	1,575
Patients referred by Public Health Nurses and other graduate nurses.....	162
Patients referred by Mothers' Pensions.....	42
Patients referred by self.....	119
Boys' Industrial School	56
Deroche Relief Camp	10

The large number of positive tuberculous cases among contacts returning for examination is an accumulation over the years that are being followed up carefully year by year. This part of our work dealing with contacts, both first examination and re-examination, is very interesting and should be most profitable. It is also greatly appreciated by the families concerned and by the medical profession.

Again, we have a large number of cases of pleurisy, mostly with effusion. I mentioned last year that a review of our cases since clinic began showed over 1,000 of these cases, and that it was our intention to check up on as many of these as possible. This work is still going on and will not be complete for some time. There have been sufficient cases, however, that are showing evidence of being tuberculous to justify us in treating all such cases as tuberculous, and to have them followed up by repeated examinations over a matter of years.

The number of suspects remains very constant from year to year. This is due to the fact that a great many cases are put in this column who have suspicious symptoms or history, but on examination are found to be negative to physical and X-ray findings. They are thus placed so that they may be followed up and diagnosis definitely made one way or another. In fact, in many cases we suspect that they are not tuberculous.

CHANGES IN DIAGNOSIS, YEAR ENDED DECEMBER 31ST, 1934.

Negative to suspect.....	11
Suspect to negative.....	8
Suspect to bronchitis.....	2
Suspect to tuberculosis.....	12
Tuberculosis to suspect.....	1
Tuberculosis to negative.....	4
T.B. pleurisy to negative.....	1
Malignancy to tuberculosis.....	1
Negative to tuberculosis.....	6
Bronchitis to suspect.....	1
T.B. infection to tuberculosis.....	1
Suspect to other diagnosis.....	4
Minor changes in diagnosis.....	39
	—
Total	91

CLASSIFICATION OF NEW PATIENTS ACCORDING TO NATIONALITY, PULMONARY AND HYLUS T.B. ONLY.

English	36
Irish	4
Scotch	7
American	12
Japanese	3
Finnish	1
	—
<i>Carried forward</i>	63

CLASSIFICATION OF NEW PATIENTS ACCORDING TO NATIONALITY, PULMONARY AND
HYLUS T.B. ONLY—*Continued.*

<i>Brought forward</i>	63
Norwegian	3
Italian	3
Jugo Slav	3
Swedish	1
Russian	1
Chinese	2
Polish	2
Austrian	3
Hungarian	1
Litvian	1
Serbian	1
Australian	2
German	2
Doubtful	4
Canadians—	
Indians	16
British Columbia	37
Ontario	17
Quebec	2
Nova Scotia	5
New Brunswick	1
Alberta	10
Saskatchewan	8
Manitoba	9
	— 105
	—
Total	197

POSITIVE CASES RESIDING IN BRITISH COLUMBIA LESS THAN THREE YEARS.

Other Canadian Provinces under 1 year.....	7
British	3
Foreign	1
	— 11
Other Canadian Provinces, 1 to 2 years.....	2
British .....	..
Foreign	1
	— 3
Other Canadian Provinces, 2 to 3 years.....	1
British	1
Foreign	1
	— 3
	—
Total	17

Only 27 per cent. of the total new cases are British Columbia born, including Indians, and 35 per cent. are Canadian born. Seventeen, or nearly 10 per cent., have been in Canada less than three years. I understand that the percentage of this latter class in Vancouver is much larger than this. This is to be expected, as these cases gravitate to the larger cities.

NURSING AND X-RAY SERVICE.

This service, provided by Christmas-seal sale funds, is not materially different from previous years. It consists practically of assistance at clinics, taking of histories, X-ray work, both operating and developing, and making out of reports on cases examined, also filing of same. This work, which is under Miss J. B. Peters, R.N., is a very important part of clinic. Very little of the social-service work, so necessary for our success, can be done, but we are

ably assisted in this by the Public Health Nurses in the various districts. They are all very enthusiastic in their co-operation. The addition of an assistant in the office has been greatly appreciated.

The Health Exhibit at Vancouver Exhibition was continued again this year in co-operation with Vancouver Chest Clinic. The nurse and X-ray equipment was loaned to Cariboo Gold Quartz for making a survey of employees in this mine, all expenses in connection therewith being defrayed by the company. Another instance of co-operation.

CHINESE, BRITISH COLUMBIA.

Year.	Deaths from Tuberculosis.	Deaths, all Causes.	T.B. Rate per Cent., all Deaths.	Population.	T.B. Rate per 1,000 Population.
1922.....	64	232	27.58	23,600	2.71
1927.....	50	211	23.69	25,500	1.96
1928.....	45	224	20.08	26,000	1.73
1929.....	43	258	16.66	26,400	1.62
1930.....	38	210	18.09	26,900	1.41
1931.....	52	210	25.00	27,391	1.89
1932.....	30	204	14.70	27,139	1.10
1933.....	38	197	19.28	27,058	1.40

JAPANESE, BRITISH COLUMBIA.

1922.....	22	190	11.58	15,806	1.38
1927.....	35	209	16.74	19,660	1.78
1928.....	27	170	15.88	20,300	1.33
1929.....	39	191	20.41	21,000	1.85
1930.....	26	169	15.38	21,600	1.20
1931.....	38	173	21.96	22,205	1.71
1932.....	32	159	20.12	22,500	1.42
1933.....	28	176	15.90	23,000	1.21

BRITISH COLUMBIA INDIANS.

1922.....	99	370	26.76	25,694	3.85
1927.....	151	524	28.81	24,316	6.20
1928.....	175	497	35.21	24,316	7.19
1929.....	170	540	31.48	25,107	6.77
1930.....	164	491	33.40	25,107	6.58
1931.....	165	512	32.22	25,107	6.57
1932.....	189	531	35.59	24,599	7.60
1933.....	187	531	35.21	24,599	7.60

RACES OTHER THAN CHINESE, JAPANESE, AND BRITISH COLUMBIA INDIANS.

1922.....	322	4,115	7.82	475,900	0.67
1927.....	315	4,806	6.55	553,524	0.56
1928.....	386	5,019	7.69	570,384	0.67
1929.....	363	5,408	6.71	586,493	0.61
1930.....	392	5,530	7.08	602,393	0.65
1931.....	387	5,219	7.41	619,560	0.62
1932.....	314	5,256	5.97	629,762	0.49
1933.....	291	5,317	5.47	637,343	0.45

BRITISH COLUMBIA, ALL RACES INCLUDED.

1922.....	507	4,907	10.33	541,000	0.93
1927.....	551	5,750	9.58	623,000	0.88
1928.....	633	5,910	10.79	641,000	0.98
1929.....	615	6,397	9.61	659,000	0.93
1930.....	620	6,400	9.68	676,000	0.91
1931.....	642	6,114	9.58	694,263	0.92
1932.....	565	6,150	9.18	704,000	0.80
1933.....	544	6,221	8.74	712,000	0.76

EDUCATIONAL WORK.

In addition to the personal contacts incident to our work, which, by the way, is very important, and the distribution of literature, eight lectures were given to nurses-in-training; one address before Kinsmen's Club at Chilliwack; another before Kiwanis Club at Victoria; a meeting with Local Council of Women at New Westminster; lecture to Public Health Nurses' class at University; and attendance at annual meeting, Tranquille Tuberculosis Society at Tranquille.

HOSPITAL INSPECTION.

The position of the hospitals financially is much improved, due to the restoration of per diem hospital grant to its former level. Some lessons were learned as to economy, I believe, without materially impairing their efficiency. Buildings and equipment have both suffered for lack of funds, waiting for a return of more prosperous times. Very little new construction has taken place. Private hospitals have had a difficult time financing; seven licences have been rescinded during the year and four new licences have been issued, leaving a total of thirty-three licences in force at present.

Three different parties were refused licences for one building, and another application for same place is still under advisement. Licence was also refused to another party for two different locations.

Thirteen official inspections of operating private hospitals were made, and eight inquiries held with those making applications.

Twelve public hospitals were officially inspected, in addition to the usual visits incidental to my holding clinics in most of them. Meetings were held with boards of directors or committees of same in twelve cases, and annual meetings of hospital societies were attended at Alexis Creek and Crippled Children's Hospital, Vancouver, and a special general meeting at Mission.

GENERAL COMMENTS.

The easing-up of pressure for beds at the Sanatorium mentioned in last year's report due to increased bed accommodation in Vancouver has ceased to exist, but there is now a considerable waiting-list especially for female cases. Our discussions of late give promise of some improvement in this condition in the near future without any large capital expenditure. Whether this is accomplished or not, there will still be the necessity for extension of the Travelling Clinics services, as the less institutional care provided, the more supervision in the homes will be necessary.

I have already mentioned the fact earlier in this report that the clinic is being made use of more and more in supervision and treatment of cases in their homes, as well as for diagnostic purposes, a condition that I am encouraging, and only repeating it here for emphasis.

Co-ordination of all the work under the Provincial Board of Health I would again emphasize as most essential.

Once again I would like to express to you my keen appreciation of the cordial co-operation and helpful assistance at all times of yourself and staff in this special field of health-work, and for much timely advice in connection with hospital-work, also to the Lady Superintendents and staffs of hospitals for their assistance in making our clinics both convenient and efficient, often at considerable inconvenience.

I have, etc.,

A. S. LAMB,
*Travelling Medical Health Officer and
Hospital Inspector.*

REPORT OF INSPECTOR OF VITAL STATISTICS.

VICTORIA, B.C., February 1st, 1935.

H. E. Young, M.D., C.M., LL.D.,
Provincial Health Officer, Victoria, B.C.

SIR,—I have the honour to submit a preliminary résumé of administrative work completed by the Vital Statistics Branch for the year ended December 31st, 1934.

For the Vital Statistics Branch the year 1934 was by far the busiest in its history. Administration-work has more than doubled, while the revenue of the Victoria Office alone has increased from an average of some \$450 to over \$750 per month. To meet the increased burden, your staff has been forced to work strenuously and unstintingly, which they have done loyally, giving, as you well know, many hours of their own time without a single word of complaint.

With the advent of the new fiscal year on April 1st, 1935, it is proposed to divide the Branch into two sections: the first, being purely administrative, will deal with policy, issuance of certificates and marriage licences, and many other duties affecting the general public. The other section will deal with the statistical work, including the preparation of statistics and special studies which are being constantly demanded of the Branch: publication of the Monthly Bulletin, etc.

THE RETIREMENT OF MR. MACPHAIL.

May I at this time be permitted to make reference to the retirement of E. S. Macphail as Chief of the Division of Census and Vital Statistics of the Dominion Bureau of Statistics.

Since 1918, when the agreement between the Dominion Government and the Provinces regarding vital statistics was signed, vital statistics in British Columbia has progressed side by side with the other Provinces, while in this field of endeavour Canada as a whole has taken its place with the other leading countries of the world. Now in no small measure is this due to the hard work and expert guidance of Mr. Macphail, which we in British Columbia fully appreciate.

Mr. Macphail is succeeded by W. R. Tracey, his worthy first lieutenant, upon whom will rest the responsibility of carrying on the construction of a work the foundations of which have been well and truly laid by his predecessor.

DEPARTMENTAL CONFERENCE.

On behalf of H. B. French, the Deputy Registrar, it was my privilege to attend the Departmental Conference under the chairmanship of Dr. H. M. Cassidy, Director of Social Welfare, held at Vancouver, B.C., November 15th to 17th, 1934. From this conference much valuable information was obtained which in the future will enable the Branch to be of assistance to the other units of the Department.

REGISTRATION OF ADOPTIONS.

In January, 1934, the Vital Statistics Branch took over the adoption records from the General Office of the Provincial Secretary. Every file was carefully checked and where possible correlated with their respective birth registration. When the correlation was finished it was found that some ninety of the very earliest adoptions had no corresponding birth registration, so, in accordance with your instructions, F. O. Sutton, the Record Clerk, and myself spent the week of May 28th in Vancouver, and through the courtesy of J. F. Mather, the District Registrar of the Supreme Court, were allowed access to the Court files relating to these adoptions. From the Court files enough information was extracted to enable the Branch to accept registrations of the births from the parents by adoption when they are located. Our visit was advertised by courtesy of the Vancouver *Province* and Vancouver *Sun* newspapers, and some 200 persons with adopted children, or their solicitors, were interviewed: many of the new "adoption birth certificates" were issued: while many persons received information on other matters pertaining to adoption records.

NEW REGISTRATION FORMS.

One of the major accomplishments during the year was the adoption of the new form for registration of births, and the approval of the Provinces and the Dominion Government through the Canadian Public Health Association was given as to the content and make-up of the new

form for registration of death. The birth form was prescribed for use on August 1st and is now in almost general use throughout the Province. A résumé of this form appeared in the June issue of the Bulletin. The death form will be introduced some time during February, 1935.

REGISTRY OF DIVORCE.

As you know at the present time the endeavour of statistical workers is for a unification of statistics throughout the Dominion, and one of the subjects under discussion at the present time is the creation of a central registry of divorce in each Province, with, we hope, ultimately transmission of divorce statistics to the Dominion Bureau to be dealt with in conjunction with those of births, deaths, and marriages. It has been acknowledged that the proper place for such a registry is with the Vital Statistics Branch in conjunction with the other statistics relating to human life. Alberta, Ontario, and Saskatchewan already have this provision and we are recommending to the Minister that British Columbia should follow in line. There has been maintained up to the present time an index of divorce in the office of the Registrar-General, but this index contains no information other than the names, dates, and place of divorce, which does not assist us very much in our work.

We are concerned very materially in the administration of the Department in the award and custody of minor children not only from a welfare point of view, but in the case of marriage of such minor children. The Department is also concerned in cases of remarriage of the parties to the divorce, and many other minor points. At present as much as from one to two weeks of valuable time is wasted waiting for information to be obtained from the respective registry in which the divorce was entered. For example, a case needing instant investigation or decision comes before the Department. It is necessary for us now to phone the Registrar-General to ascertain the place at which the divorce was granted. He tells us Prince Rupert, Prince George, etc., as the case may be. We then have to write to the Court Registry at the individual place to secure our information, all of which should be in the decree. We feel that a proper registry would be not only an immense value from a statistical standpoint, but from administration purposes of this and other branches of welfare-work, as it would enable us to deal with cases without unnecessary delay.

"ADOPTION ACT."

In collaboration with the Superintendent of Welfare, a new "Adoption Act" is being prepared, which it is hoped the Government will submit to the Legislative Assembly at the forthcoming session. A full and careful check of the whole situation was made, taking into account the many vital problems affecting the Department of Welfare and this Branch. In the new Bill we have endeavoured to set forth more clearly the different stages required up to the issuance of the order of adoption by the presiding judge. A probationary period of residence for the child with its prospective parents by adoption for one year is provided, as it is considered essential and in the interests of not only the children, but also the adopting parents, that there be a trial period of cohabitation prior to the granting of the final order. There is also a chance that physical defects in a new-born child might not be apparent, but that after a period of one year such defects would appear. Provision is also made for an investigation by the Superintendent of Neglected Children, and that a full report of such investigation be made to the Court for the guidance of the presiding Judge. The final decision of course is left to the Judge.

Provision is also made that, where an adoption agreement had been executed prior to the passing of the first "Adoption Act" in this Province, the Registrar of Births, Deaths, and Marriages shall be the custodian of the documents filed in this connection. The final decision of signing the certificate of adoption is still left as a power of the Provincial Secretary. Provision is also made for securing the secrecy of documents filed pursuant to the Act.

LEGITIMATION OF BIRTH.

A great number of persons are still taking advantage of the provisions that where proof is submitted to you establishing the fact that the natural parents have contracted marriage subsequent to the birth of a child born out of wedlock, a new registration of birth may be substituted for the one upon which the stigma of illegitimacy appears. Having dealt with the majority of these cases personally, and having seen some of the good effects of this portion

of the "Vital Statistics Act," I would say that this is one of the most advanced steps in the treatment of illegitimate records that we have made in some years.

SCHOOL REPORTS.

We have again in the year 1934 received the whole-hearted co-operation of the school-teachers in this Province in giving us the names, dates of birth, places of birth, and present addresses of the parents or guardians of the children attending school. From this part of our work the Vital Statistics Branch has been enabled to assist the general public in straightening out many problems relating to their children. Many adoptions which had not been registered have been traced and many children whose births had not been registered at the time of birth have now been registered.

This work has also brought to light the fact that there are in existence many adoption agreements, where the persons covered by the agreement have attained the age of 21 years; these of course cannot be recognized under the "Adoption Act," which deals solely with minors. In the majority of cases the births of these persons have not been registered, and while there is every possibility that the births could be registered in the name at birth, yet this does not meet the requirements of the foster-parents, who naturally wish to have a birth certificate which gives the child their own surname.

The "Vital Statistics Act" provides that in the case of an adoption duly completed pursuant to the "Adoption Act" a marginal notation of the particulars of adoption may be made upon the original registration of birth, and a certificate issued therefrom shows the name of the child by adoption, and the names of the parents by adoption, without any of the previous history of parentage appearing. I feel very strongly that during the coming year this matter should be thoroughly thrashed out and, if possible, legislation drafted and submitted to the Government which will take care of these cases, of which there are many hundreds in the Province.

CHURCH RECORDS.

During 1934 the gathering together of baptismal, burial, and marriage records from the churches for copying had to be curtailed owing to the increase in the other work of the Branch. We have, however, gathered in one or two very old registers which have been transcribed and returned to their respective owners.

REGISTRATION OF MINISTERS AND CLERGYMEN.

Registration of ministers and clergymen by authority of the "Marriage Act" of 1930 still continues. At the end of the year there were some 975 names on the register.

FRAUDULENT REGISTRATIONS.

During 1934 you were required to preside at hearings into thirty-two cases of alleged fraudulent registrations. An attempt was also made to secure a registration of birth which our investigation proved to be fraudulent. The offender was summoned under section 34 of the "Vital Statistics Act," and summarily convicted for having made a false statutory declaration.

I should again like to express my appreciation of the assistance rendered in the publication of the Monthly Bulletin of the Provincial Board of Health by the whole staff.

I should also like to once more thank the District Registrars of Births, Deaths, and Marriages, officers of the Provincial Police, Royal Canadian Mounted Police, and others, for their assistance in carrying on the work in the outlying districts, and assisting in necessary investigations which have been a great saving in the matter of travelling expenses.

I have, etc.,

J. T. MARSHALL,

Inspector of Vital Statistics.

VANCOUVER LABORATORY.

VANCOUVER, B.C., January 29th, 1935.

H. E. Young, M.D., C.M., LL.D.,
Provincial Health Officer, Victoria, B.C.

SIR,—I have the honour to submit herewith the annual report of the work of the Provincial Board of Health Laboratories for the year 1934.

The staff consists of Director (consulting), Assistant Director and Chemist, Chief Bacteriologist, three technicians, two record clerks, a media-maker, two women cleaners, and a janitor—twelve in all.

The total number of specimens done during the year are tabulated below:—

Examinations, 1934.	Out-of-town Specimens.	City.	Total.
Animal inoculation.....	14	45	59
Diphtheria virulence.....	.....	28	28
Blood agglutination—			
T.A.B. Bang, 3 dil. (or more).....	387	1,143	1,530
T.A.B. Bang, 1 dil.....	165	19	184
T.A.B.S.F. Bang, 3 dil. (or more).....	18	222	240
Typhoid.....	2	40	42
<i>B. tularensis</i>	1	.....	1
Sonne bacilli agglutination.....	.....	6	6
Cultures—			
Aerobic.....	34	442	476
Anaerobic.....	.....	.....	.....
Spinal fluid.....	9	4	13
Typhoid group.....	19	97	116
Diphtheria, routine.....	122	6,903	7,025
Diphtheria, school.....	.....	1,123	1,123
Hæmolytic strep.....	18	347	365
Smears—			
Gonococci.....	1,279	7,480	8,759
T.B. sputum.....	672	6,861	7,533
T.B. spinal fluid.....	3	1	4
T.B. urine.....	4	98	102
T.B. pleuritic fluid.....	1	4	5
T.B., miscellaneous.....	17	20	37
Vincent's angina.....	12	521	533
Spirochæta pallida.....	2	44	46
Direct smear for diphtheria.....	3	23	26
Ringworm.....	.....	123	123
Parasites.....	4	53	57
Fæces for occult blood.....	1	8	9
Spinal fluid—			
Routine, count, globulin, Fehling's.....	22	62	84
Chemical, protein, chlorides, sugar.....	4	1	5
Colloidal gold.....	24	263	287
Kahn—			
Blood.....	1,995	19,032	21,027
Spinal fluid.....	57	755	812
Milk-count.....	156	1,161	1,317
Water, <i>B. coli</i>	615	58	673
Water-count and <i>B. coli</i>	38	295	333
Convalescent serum—			
Measles.....	.....	1	1
Polio.....	17	3	20
Vaccine, typhoid-paratyphoid.....	.....	36	36
Miscellaneous.....	72	57	129
Totals.....	5,787	47,379	53,166

During the past year there has been an increase of 7,631 specimens examined, or 16.8 per cent. over the total for 1933, this increase being fairly evenly distributed over nearly all types of examinations. This makes a total increase of 11,587 specimens, or 27.9 per cent. increase

over 1932, our first complete year directly under the Provincial Board of Health. Great credit is due the staff for the efficient and cheerful way they have assumed this extra work and for the overtime it has required.

Miss M. Malcolm was granted leave to study in Dr. Kahn's Laboratory, Ann Arbor, Mich., and the Toronto Public Health Laboratory, and to attend the Canadian Public Health Association meeting at Montreal. Miss Malcolm obtained very useful information from this period of study and gave us valuable contacts with Eastern laboratories.

Miss D. Kerr and Miss V. Hudson attended the American Public Health Association meeting at Pasadena. Miss Hudson presented a paper on her work on *B. coli* in milk—"Coli-aerogenes in Wagon Milk, Raw and Pasteurized." Dr. H. W. Hill wrote a paper, "Cost Accounting in State Laboratories," for the Directors' meeting of the American Public Health Association, which was read and discussed by Miss D. Kerr.

Respectfully submitted.

H. W. HILL, M.D.,
Director, Provincial Board of Health Laboratories.

VICTORIA, B.C.:

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1935.

